Hedgehogs, foxes and other embodiments of academics' research career trajectories

Contemporary Social Science

ISSN 2158-2041

https://www.tandfonline.com/rsoc

Editors:
John Connolly - University of the West of Scotland, UK
Jacqueline Barnes - Birkbeck University of London, UK

Routledge
Taylor & Francis Group

Contemporary Social Science

Journal of the Academy of Social Sciences

Routledge

ACADEMY SOCIAL SCIENCES

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rsoc21

Hedgehogs, foxes and other embodiments of academics' research career trajectories

Graham Crow

To cite this article: Graham Crow (2020): Hedgehogs, foxes and other embodiments of academics' research career trajectories, Contemporary Social Science, DOI: 10.1080/21582041.2020.1849784

To link to this article: https://doi.org/10.1080/21582041.2020.1849784

Published online: 16 Dec 2020.

CONTEMPORARY SOCIAL SCIENCE
https://doi.org/10.1080/21582041.2020.1849784

ACADEMY of SOCIAL SCIENCES
Routledge Taylor & Francis Group

Hedgehogs, foxes and other embodiments of academics' research career trajectories

Graham Crow

Social and Political Sciences, University of Edinburgh, Edinburgh, UK

ABSTRACT

Academics' career trajectories follow diverse paths, and understanding them is challenging. Animal metaphors, notably the contrast between hedgehogs and foxes, have helped to distinguish patterns but need reappraisal as universities change. Reflecting on prominent sociologists' careers, the argument is developed that academic trajectories differ according to whether work is blue skies or applied, and how it relates to innovation and consolidation. Four types of academic animals are identified: bears, beavers, jackdaws and eagles. Ann Oakley's career is used to illustrate how individuals' trajectories may move between these. For researchers anticipating how their academic futures may unfold, role models framed in these terms offer alternative scenarios.

ARTICLE HISTORY
Received 31 August 2020
Accepted 3 November 2020

KEYWORDS
Academic careers; animal metaphors; research innovation and consolidation

Introduction

Academics' research careers take many paths. These trajectories interest early career researchers planning their futures, established figures pondering their intellectual journeys, biographers analysing the lives of others, and organisational sociologists researching career patterns. Reflecting academics' penchant for animal metaphors (Sword, 2017, ch.12), Isaiah Berlin influenced these debates through his discussion of hedgehogs and foxes as types of 'intellectual and artistic personality' (1953, p. 2). Berlin contrasted those thinkers 'who relate everything to a single central vision' and those 'who pursue many ends, often unrelated and even contradictory'; these types of thinking are, respectively, 'centripetal' and 'centrifugal' (1953, p. 1). Archilocus's observation, 'The fox knows many things, but the hedgehog knows one big thing', is a line from classical poetry that Berlin knew was open to interpretation, like other elements of fables and folklore going back through the Renaissance to ancient Greece (Gould 2004, Preface) and traceable additionally to other cultures, such as that of enslaved African-Americans which bequeathed the classic underdog story of Brer Rabbit (Gladwell, 2014, ch.6). Berlin's initial suggestion that hedgehogs and foxes are separated by 'a great chasm' was promptly modified by a concern regarding 'rigid' or 'over-simple' classifications and by

CONTACT Graham Crow gcrow@exseed.ed.ac.uk

his recognition that individuals may be in the hedgehog category 'in varying degrees' (1953, p. 1, 2). Berlin struggled with Tolstoy as a difficult case, an individual located 'by nature' among the 'sharp-eyed foxes' but nevertheless attracted to a 'single great vision' (1953, p. 80). By positing that Tolstoy's career trajectory took him away from the foxes and towards the hedgehogs, Berlin suggested the possibility of the typology being re-worked.

Berlin's essay prompted enduring debate, his later remark that it had not been intended to be taken particularly seriously (Berlin & Jahanbegloo, 1991, p. 188) notwithstanding. Subsequent discussion celebrates hedgehogs' willingness to work with one overarching idea in pursuit of an analysis of ever-greater rigour and reach. This is treated as the reward for thinkers prepared to persevere with a project that requires extensive commitment (sometimes a whole career) to think through satisfactorily. By taking their time, hedgehogs are able to build coherent analyses that in a way that foxes are too impatient, undisciplined or vulnerable to distraction to achieve. By contrast, there is appreciation for foxes' nimbleness and their preparedness to change their minds and to adapt, to pursue new agendas. These things are compared favourably with hedgehogs' stubborn adherence to their one big idea. Konrad Gesner's sixteenth-century woodblock portrayals of foxes and hedgehogs are evocative of their respective characteristics, 'cunning and persistence' (Gould 2004, p. 2). Philip Tetlock criticises 'intellectually aggressive' (2005, p. 20) hedgehogs for their reluctance to admit to error even when examination of their analyses reveals their flaws. Berlin himself was more sympathetic to foxes than to hedgehogs; he was a pluralist drawn to unconventional thinkers who were reluctant to 'swim with the tide' (1953, p. 81) of prevailing opinion Figures 1 and 2.

Berlin portrayed Karl Marx as a hedgehog whose career was devoted to elaborating a core idea that by his early thirties was fixed; after this, Marx 'was emotionally and intellectually set and hardly changed at all' (1982, p. 13). Marx proceeded, according to Berlin, to construct 'a complete theory of society and its evolution', an analytical framework

Figure 1. Konrad Gesner's fox https://www.nlm.nih.gov/exhibition/historicalanatomies/gesner_home.html p. 1081.

Figure 2. Konrad Gesner's hedgehog https://www.nlm.nih.gov/exhibition/historicalanatomies/gesner_home.html p. 400.

developed as 'a single systematic whole', a 'single integrated account' (1982, pp. 9, 10, 15). The defensive spines of the hedgehog are conjured up by Berlin's description of Marx's thinking: 'The system as it finally emerged was a massive structure, not to be taken by direct assault' (1982, p. 12). Another hedgehog figure was Auguste Comte, whose pursuit of what Berlin described as 'one complete and all-embracing pyramid of scientific knowledge' through the application of 'one method' betrayed a 'naïve craving for unity and symmetry at the expense of experience' (2008, p. 96). Other hedgehogs in the sociological canon include Herbert Spencer (with his distinctly nineteenth-century overarching idea of social evolution), Talcott Parsons (dedicated to exploration of social systems), and Norbert Elias (who engaged over more than six decades with the civilising process). Less straightforwardly, Elias's contemporary Barbara Wootton's writings had gender inequality as a recurrent concern without it being systematically 'subjected to her critical analytical gaze' (Oakley, 2011, p. 351). Likewise, T. H. Marshall's work on citizenship suggests another hedgehog characteristic, having a novel and important idea and developing it 'into a coherent theory' (Mann, 1996, p. 125), but however influential it was, it did not structure his whole career.

Robert Merton has been identified as a fox on the grounds of his awareness of ambivalence, his preference for middle range theorising, and his 'roving mind' (Bierstedt, 1990, p. 67) that led him to serendipitous findings, and to the concept of serendipity itself (Merton & Barber, 2006). Erving Goffman with his 'brilliant but butterfly mind' (Giddens, 1988, p. 251) is another sociological fox. His career had a centrifugal pattern as he switched between metaphors of social life as drama, games, strategy and ritual. Critical of approaches that created frameworks 'into which a continuously larger number of facts can be placed' (1971, p. 21), Goffman remarked that 'scaffolds .... should be erected with an eye to taking them down' (1969, p. 246). Another fox was Michael Young, whose restless nature meant that he was always cultivating new projects but not necessarily building on them; Peter Townsend described him as having a 'talent for innovation without necessarily consolidation' (Mullan, 1996, p. 238). He had multitudinous interests (Dench, Flower, & Gavron, 1995) but sooner or later 'he tended to lose interest in things' (Sennett, 2006, p. iv). His remark that 'to be any good as a researcher, you have to be prepared to change your mind' (quoted in Briggs, 2001, p. x) was also

vulpine. A fellow fox in this regard was Ray Pahl, who periodically returned to his ideas in order 'to modify them substantially' (1984, p. 13), in contrast to hedgehogs' efforts to shore up their systems when they come under strain. Pahl also followed a vulpine agenda across the panoply of sociological activities set out by Garry Runciman (1997, p. xiv). Runciman understood the seven types of sociological work that he identified to constitute options from which an individual might focus on one or some, but Pahl's sociological nose led him in all directions during a long and varied career (Crow & Takeda, 2011). Denied the opportunity to hold formal university positions, many of Lynn McDonald's (1994) women founders of the social sciences had similarly eclectic interests. Their inclusion in debates about academic animal types is belatedly being facilitated as inherited gender biases in the writing of the history of social science and the biographies of social scientists are rectified.

Reconsidering the hedgehog/fox distinction

Identifying people who conform to the defining characteristics of hedgehogs or foxes has some utility, but it takes things only so far. To begin with, it does not differentiate later career trajectories. Among sociologists who have lived beyond 80 there are instances of both hedgehogs and foxes continuing to work right up to the end of their lives. Examples include Elias and Spencer on one side and Merton and Young on the other. A hedgehog's pursuit of further confirmations of their theory and rebuttals of criticisms may be just as compelling a reason to keep working as a fox's pursuit of further eye-catching new things. Neither is it possible to discern a distinct pattern between hedgehogs and foxes who died younger. Examples exist of both leaving uncompleted agendas. Among the hedgehogs, Marx's death at 64 came with only the first volume of *Capital* published; his collaborator Frederick Engels had to work on the other two before their posthumous publication. More than a century on, Ernest Gellner was still actively jousting with contemporaries, including Berlin, at the time of his death aged 69. His biographer insists on placing Gellner's 'highly integrated mind' (Hall, 2011, p. x) in the hedgehog camp. Among the foxes, Goffman's death aged 60 left 'unfinished business' (Williams, 2008, p. 194). Pahl, who died aged 75, also remained academically active to the last. Academics may resemble politicians, haunted by the idea of a career ending in failure. Christopher Husbands (2019, p. 391ff) considers this hypothesis in relation to LSE sociologists, mindful perhaps of Crane Brinton's question concerning academic obsolescence, 'Who now reads Spencer?' (Parsons, 1968, p. 3).

Further difficulties make it hard to sustain a clear-cut distinction between hedgehogs and foxes. Berlin himself grappled with the case of Tolstoy, describing him as 'a fox, who wanted to be a hedgehog' (Berlin & Jahanbegloo, 1991, p. 190). Marshall, another tricky case, would not himself have recognised the identification by later scholars of citizenship as his one big idea; only one of the chapters in *Sociology at the Crossroads* (Marshall, 1963) addressed citizenship, and he identified social stratification as his principal subject. His inaugural lecture criticised 'over-elaboration of concepts', but he distanced himself not only from 'wide generalizations' but also from the opposing view that 'small facts are worth more than big because it takes finer tackle to catch them' (Marshall, 1963, p. 14, 12, 15). Despite the fact that 'Marshall is remembered above all for the brilliance of his work on citizenship' (Giddens, 1996, p. 208), he is not easy to place in either camp,

hedgehog or fox. In the case of the anthropologist Mary Douglas (who herself had an interest in anthropomorphism and wrote about animal metaphors), her biographer Richard Fardon considered Lewis Coser's treatment of her as 'very much a fox' a view that was both 'right and wrong' (1999, p. 243). Fardon noted his subject's 'extravagant range' of interests, but nevertheless argued that 'like the hedgehog, Douglas has known one big thing'; her various works constitute 'the organic outgrowth of the way in which she has explored her big idea' (1999, p. 243). Her core analytical frame of grid and group was established before she was 50, and was followed by several decades of 'excursions and adventures' (1999, p. vii) elaborating on it.

Howard Becker recommends that when classifying we pay attention to 'cases that don't fit' (1998, p. 85). One response to awkward cases is to rework a simple opposition as a continuum. In Tetlock's hands (in his study of political prediction) this moves from hedgehogs through hedge-foxes and fox-hogs to foxes. It is a 'rough cognitive-style continuum' with the intermediate positions located between the extremes of 'closed-mindedness' and 'excessive open-mindedness' (2005, p. 20, 23). Foxes are saved from hedgehogs' vulnerability to 'excessive enthusiasm', 'overconfidence' and even 'hubris' by their 'self-critical, point-counterpoint style of thinking' (2005, pp. 21–2). Against this, the tentative, qualified manner with which they 'hedged their bets' gave foxes' predictions less appeal to audiences than the 'confident, decisive modes of thinking favoured by hedgehogs' (2005, p. 21). In this competition for attention, hedgehogs are aided by people's dislike of 'ambiguity', which makes them more open to persuasion by analyses that are presented with boldness and confidence and that promise closure and less persuaded by analyses produced by foxes who are 'eclectic' and 'content to improvise ad hoc solutions' (2005, p. 38, 82, 21) to problems. Tetlock describes hedgehogs as 'thinkers who "know one big thing," aggressively extend the explanatory reach of that one big thing into new domains, [and] display bristly impatience with those who "do not get it"' (2005, p. 73). In contrast, foxes are 'thinkers who know many small things … are sceptical of grand schemes, see explanation and prediction not as deductive exercises but rather as exercises in flexible "ad hocery" that require stitching together diverse sources of information, and are rather diffident about their own forecasting prowess' (2005, pp. 73–5). Between these ends of the continuum Tetlock located a quarter of his participating experts as hedge-foxes and another quarter as fox-hogs, based on their responses to his 'Styles-of Reasoning Questionnaire' (2005, p. 241; see also p. 72ff). Tetlock's intermediate positions offer greater subtlety than the stark hedgehog/fox choice.

Becker's advice also encourages examination of instances in which an individual thinker does not occupy one, fixed position but rather shifts over time. The industrial sociologist Alan Fox, whose period as an Oxford don overlapped with Berlin's, described his early 'struggle to think out a social and political philosophy which held together in some kind of – always provisional – integration, both my personal values and ideas' (1990, p. 215). The 'itch for a theoretical framework' was not easily satisfied, and he found the process of 'groping towards a theoretical structure' a prolonged one; only latterly did he feel his ideas had reached 'some kind of satisfactory unity' (1990, p. 224, 231, 234). It was, as his autobiography's title has it, 'a very late development', and not only because he entered academia as a mature student. He described the experience of changing his analytical perspective as a long and painful process, 'among the more punishing aspects of the academic life' (1990, p. 236). This involved overcoming doubts about

theorising being 'mere self-indulgence' (1974, p. 368). His movement towards the hedgehogs was only ever partial, but his final academic book was nevertheless the result of that direction of travel; it was an 'effort at synthesis' (1985, p. xii) that sought to bring together in a coherent framework the varied material on which he had worked across his career. Fox's 'intellectual pilgrimage' took him to a greater appreciation of 'the value of conceptual thought, abstract speculation, and imaginative perception' (1990, p. 225, 245). It also left him positive about formally retiring at 60 after three decades in academia.

A further limitation of the hedgehog/fox distinction is its normative framing. The shortcomings of hedgehogs – their rigidity, overconfidence, and tendency to gravitate towards confirmatory evidence – are treated as more serious than those of foxes, who are comfortable with analytical flexibility, ambiguity, and caution. This assessment might be countered by Basil Bernstein's remark that 'An *ad hoc* a day may keep a theory in play but in the end destroys it, because it prevents any rethinking of the basic structure' (1973, p. 18). Bernstein developed his theory of restricted and elaborated codes of speech through publications that contained 'much inconsistency', about which he was unapologetic because they stood as 'a sign of growth' on the journey towards a more defensible grasp of the subject under investigation through on-going 'conceptual development' (1973, p. 18, 29). Berlin observed that, in general, hedgehogs with their pursuit of analytical rigour are driven to an unusual extent. It is foxes with their more relaxed attitude to inconsistency that are more often encountered: people 'obsessed by single models are rare' (1980, p. 159). Berlin conceded that people could be seduced by 'a unitary pattern in which the whole of experience .... is systematically ordered' (2008, p. 155) but warned of such models being 'blown up by reality' (1980, p. 159). Berlin arrived at his conclusions more through philosophical analysis than through engagement with sociology, a discipline he disparaged (Runciman, 2004, p. 220). Given its primary focus in Berlin's hands on individual personalities rather than on the contexts in which people pursued their intellectual work, the hedgehog/fox distinction might usefully be re-configured in a more sociological fashion.

Blue skies and impact, innovation and consolidation

Animal imagery features regularly in the history of social analysis. Francis Bacon's seventeenth-century identification of scientists as ants, spiders or bees highlights the varying significance attached to data collection and theorising in a way that has enduing relevance (Hollis, 1994, ch.4). A century later Bernard de Mandeville's *The Fable of the Bees* presented society as a more sophisticated entity than 'a Herd of Cows or a Flock of Sheep' (1970, p. 350), with greater scope for the pursuit of individual interest which in turn generates unintended consequences at the level of society. Later thinkers to engage with this idea include Adam Smith and Karl Marx (Dumont, 1977). Marx's view of 'the bee, the beaver, the ant, etc.' (1975, p. 329) as more instinctive than humans was in turn challenged by Vilfredo Pareto's emphasis on 'sentiments', the 'natural', 'non-logical' bases of human action which led him to distinguish between two types of elite groups, lions and foxes (Zeitlin, 1987, ch.12). These animal metaphors were re-worked by John Scott who built on Pareto's idea that lions employ coercion and foxes inducement to secure their power; Scott adds bears and owls, which operate through authority rather than constraint. The bear's 'domineering but benign' command is accepted as 'right,

correct, justified or valid in some way', while the owl's position is attributable to acceptance of the 'expertise … . characteristic of the wise "owls"' (2001, p. 20, 23). Separately, Gerald Mars's (1983, p. 29) classification of types of people engaged in workplace crime employs Douglas's (1978, ch.4) concepts of grid and group to identify wolves, vultures, hawks and donkeys; these are placed in the quadrants of a two-by-two matrix according to how strongly cultural categories are imposed on members of the group and the strength of collective orientation among members of the group. Such an approach has the advantages over the simple hedgehog/fox contrast of having two dimensions, thereby facilitating a focus on social context as well as individual predispositions.

When studying career trajectories, deep methodological divisions exist about how best to research them (Abbott, 2001, ch.5). Whichever approach is adopted requires paying attention to the evolving contexts within which careers are forged and the forces shaping what type of academic any one individual aspires to become and is able to become. Among contemporary characterisations of universities there is broad agreement that recent decades have seen not only expansion but also intensified competition, extended bureaucratic regulation, and growing concern to apply knowledge and thereby to demonstrate research 'impact'. In some accounts these processes are framed as involving corresponding moves away from collegiality, trust, and 'basic research' or 'blue skies thinking' justified on its own terms, what Thorstein Veblen called (with characteristic irony) 'idle curiosity' (Diggins, 1978, p. 181). These trends offer an analytical basis for understanding the changing nature of academic careers, although constructing a robust typology faces challenges specifying how they exert influence over career trajectories. Where impact is sought, for example, intended outcomes do not necessarily arrive at the desired time (and may not arrive at all). Conversely, blue skies research can have practical applications that exemplify Merton's (1936) notion of 'unanticipated consequences'.

A century on from Veblen's analysis of challenges to the pursuit of unimpeded academic inquiry it has been argued that 'the public funding of science is increasingly directed away from "blue skies" research toward research that can show a direct benefit to a private beneficiary' (Holmwood, 2011, p. 4). According to Philip Moriarty, pursuing research is in tension with 'the disinterestedness of scientists in attacking a research problem' (2011, p. 57). From this point of view, 'Scientists involved in fundamental research are traditionally driven by curiosity' and if their original question leads them to 'discover serendipitously a more interesting avenue of research then they should be free to "follow their nose" and explore because no one knows where that particular line of enquiry might lead' (2011, p. 60). The argument that 'collaborative research with a non-academic partner … . necessarily means a narrowing of research aims and objectives' (Bailey, 2011, p. 97) is, naturally, contested by advocates of the impact agenda on the grounds that much applied research would be unfeasible without collaboration beyond academia, and in addition less ethical, and less able to effect change in the world. This debate is not new. Already by the 1990s people engaged in applied research constituted a significant proportion of the university workforce (Halsey, 1995, p. 4) and renewed cases for 'an active sociology' (Payne & Cross, 1993) were being promoted. Throughout the history of the discipline many figures have advocated similar agendas; Jane Addams (McDonald, 1994, pp. 228–33; Oakley, 2018, ch.3) and Patrick Geddes (Mairet, 1957, Pt.2) are prominent examples. Sociologists have debated

the blue skies/applied issue since the discipline's institutional establishment in the nineteenth century; this warrants its adoption as one dimension of a typology of career patterns.

Specifying the typology's other dimension is more tricky. It is not straightforwardly competition versus collegiality. Competition quite readily co-exists with collegiality, as Fox's description of his college as a 'highly competitive place' (1990, p. 219) attests. The literature on contemporary universities identifies 'hyper-competitiveness' (Watermeyer, 2019, p. 17) as integral to the world of targets, algorithms and league tables within which academic careers are now forged. The roots of the marketized system known as 'academic capitalism' have been traced back to the 1980s (Slaughter & Leslie, 1997, p. 1), but competition has been a feature of universities for much longer. Pierre Bourdieu's data supporting his analysis of the competitive, game-like character of academic careers come from an earlier period, suggesting that the acquisition of academic capital is inherently competitive. Bourdieu also noted that career-building requires newly-arrived competitors to seek sponsorship or patronage from more established figures, such as the thesis supervisor in Germany known as 'the Doktorvater, the "doctor's father"' (1988, p. 88). Barrie Thorne and Arlie Hochschild's (1997) likening of academic departments to patriarchal families, characterised by sibling rivalry for the head of department father figure's favour, echoes this theme. Hochschild elsewhere treats competition as a feature of how academic advancement is routinely gendered; replacing the standard 'clockwork of male careers' would require shifting 'the balance between competition and co-operation' (2003, p. 252). This would be more consistent with a caring ethos and collegiality, although the problematic phenomenon of being 'overly concerned with the needs of *others*' (Hochschild, 1983, p. 195, emphasis in original) is another danger, also gendered.

Competition is an important element in Mars's typology of people engaged in workplace crime, notably in the profile of those he calls hawks, a group with which he had particular familiarity (2015, p. x). For hawks, both grid and group constraints are weak; their resultant autonomy gave them the opportunity to be entrepreneurial, and no reason to collaborate or to have relations of mutuality or reciprocity with fellow workers. Mars includes 'successful academics' (1983, p. 29) among them. His commentary on hawks is instructive: 'Since competition is a dominant characteristic of this type, and because the group dimension is weak, we find that alliances among hawks tend to shift with expediency and that a climate of suspicion is more common than one of trust' (1983, p. 29). For 'the cosmopolitan academic with prestige, extensive contacts and his own consultancies' (1983, p. 64), academic autonomy is facilitative of fiddles around expenses and accounting for time use. Academics who develop fiddles may be tolerated by some (possibly envious) colleagues, although others will frown upon them and emphasise instead the mutuality, reciprocity and obligations to others that are in Mars's schema in tension with competition. Merton's famous specification of 'communism, universalism, disinterestedness and organized scepticism' as the foundations of 'the ethos of modern science' (1942, p. 118) is relevant here because it suggests treating hawks as rule breakers who disregard the convention of adhering to the norms by which the enhancement of the collective endeavour is prioritised. In his analysis of deviance, Merton (1956) described expedient behaviour that involves resorting to unconventional and disruptive means as 'innovation' (in contrast to 'conformity').

Innovators can secure a competitive edge in many fields. In academia, innovation has become prized as a route to individual career advancement and collective intellectual progress, and in sociology the pursuit of 'Kuhnian revolutions' has been prominent since the 1960s (Friedrichs, 1972). The discipline has seen numerous paradigm-shifting 'turns', innovations which discourage operating within established approaches, the shortcomings of which they emphasise. Andre Gunder Frank's damning characterisation of modernisation theory as 'empirically invalid, theoretically inadequate and politically ineffective' (Harrison, 1988, p. 78) exemplifies such wholesale critique. Another illustration of the power of new ideas to reshape knowledge is feminism's distinction between 'sex' and 'gender'. Ann Oakley developed this in her first book *Sex, Gender and Society*, arguing that 'the whole conceptual territory was a mess' (Oakley, 2015a, p. 3). In related publications Oakley argued for a fresh start in sociology from a feminist perspective because existing approaches were sexist, leaving women 'invisible' (2019b, ch.1). Oakley's career has seen further advocacy of innovation, making the case for randomised controlled trials to be included in sociologists' methodological toolkit (Oakley, 2019a), and experimenting with modes of presentation, for example autobiography. Her account of her relationship with her father, the social policy academic Richard Titmuss, was a deliberate 'refusal to fit stereotyped notions of what books ought to be' (Oakley, 2014, p. xi). Oakley thus appears a convention-breaking innovator, but her career comprises more than pioneering innovations, and her critique of post-modernism as a 'delusional system' (Oakley, 2002, ch.8) disavows disruption for disruption's sake. For the purpose of classifying academic career trajectories, we might draw on Merton's contrast between innovation and conformity and re-name the latter 'consolidation', or the realm of normal science in which knowledge is painstakingly built up incrementally within a framework that evaluates findings systematically according to agreed criteria. Within this framing, Oakley's work moves between innovation and consolidation.

A case study, and some further animals

Oakley's description of systematic reviewing as 'another giant leap for sociology' followed her involvement in reviewing quantitative and qualitative outputs from numerous researchers in the fields of health, education and welfare in order to support evidence-based policy and 'practical feminism' (2005, p. 209, 51). Her innovative thinking about gender in *Sex, Gender and Society* nevertheless relied heavily on many other people's work, notably that of 'American psychiatrists … and anthropological work on the position of men and women in non-Western cultures' (2005, p. 2). Drawing on diverse researchers' findings also features in *Fracture* (Oakley, 2007), her account of a personal injury interwoven with information about ageing human bodies gleaned from several disciplines. These publications all involve, in their different ways, 'experiments in knowing' (Oakley, 2000).

Table 1. A typology of research styles, using Ann Oakley's works as exemplars

	Consolidation	Innovation
Blue skies research	*Fracture* (2007)	*The Sociology of Housework* (1974/2019b)
Applied research	'Sexual health interventions for young people' (1995)	*Social Support and Motherhood* (1992/2019a)

Mapping her work in a typology of academic endeavour that contrasts blue skies/applied research and innovation/consolidation, she can be found in all four quadrants of Table 1. This classification has similarities with but is not identical to Douglas's (1996, p. 43) typology of cultures and her (1978, p. 84) representation of grid and group, and Mars's (1983, p. 29) typology of workplace criminals. The published version of Oakley's PhD on housework is heavily-cited, yet the research was treated dismissively at the proposal stage: 'How could housework possibly be a serious academic subject?' (2019b, p. vii). It is classified here as innovative and blue skies. Also innovative (within sociology at least), by virtue of using randomised controlled trials, *Social Support and Motherhood* is treated as applied research because of the project's explicit concern to improve maternity services. An example of applied work that consolidates and builds on the work of others is Oakley and colleagues' review of sexual health interventions (Oakley et al., 1995), while *Fracture*'s combination of her 'personal story with those of others, and with history, anthropology, neurology, and the sociology of the body, health and illness' (2007, p. v) populates the blue skies/consolidation quadrant.

This exercise is merely a starting point. Oakley's curriculum vitae shows these four publications to be less than 1% of her published work (see https://www.annoakley.co.uk/cv2018.pdf) and placing even 10% into the table would reveal a much messier picture than the apparently neat clockwise movement from the top right quadrant represented here. This point is consistent with Oakley being 'sceptical about having had a "career"' in the sense of 'a progression from a lower point to some kind of "advanced" status' (2015b, p. 112). There is, in her view, at best a 'serendipitous logic of a researcher's career, a logic which often becomes available only with the benefit of hindsight' (2019a, p. viii). Merton described serendipity in social research as chance discoveries by those who knew how to look for them (Sztompka, 1986, p. 98), and unplanned facilitation of careers is well-documented. In her research among Brazilian anthropologists Mariza Peirano was 'surprised to hear, again and again, the expression "It was by chance" … . offered as an explanation of a change of course at a specific moment of their careers' (qtd in Becker, 1998, p. 30). Leon Grunberg's (2007) 'serendipitous career' included the unexpected opportunity for a natural experiment which confirmed Merton's (1956) observations about their stimulation of theoretical developments. Reporting Wootton's view about her professional life being one in which 'serendipity had played a much larger part in its direction than had informed choice' (Oakley, 2015a, p. 110), Oakley finds resonance with her own trajectory. This also echoes those participants in Jennifer Platt's study of the earlier generation of British sociologists who 'described their own careers as haphazard and unplanned', having found themselves in a context in which there was 'little scope for career planning' (1976, p. 157, 158) because opportunities arose largely by luck.

These observations are important correctives against the temptation retrospectively to impose order onto careers that have developed less strategically than organically, or possibly haphazardly (Platt, 1976, p. 125). Gary Marx has described his academic career as involving both 'opportunities to pursue topics of one's own choosing' and (quoting Herman Melville) being 'pulled hither and thither by circumstances' (2017, p. 124, 119). Bourdieu's endorsement of the idea that 'scientists are akin to pirates, taking advantage of opportunities as they arise' (1996, p. 232), provides a vivid image to this effect. The forces at work on individuals' careers beyond their control include the vagaries of how grant-awarding bodies arrive at evaluations of academic merit (Lamont, 2010). Stephen

Table 2. A typology of animal-based researcher identities.

	Consolidation (mainstream, generalist; group-oriented; pluralist)	Innovation (periphery, specialist; solitary; independent; disruptive)
Blue skies research (airborne observers)	Jackdaws	Eagles
Applied research (ground-based builders)	Beavers	Bears

Turner has angrily implied that it was no coincidence that 'Merton wrote about the Matthew effect, in which those who are given advantages, get much greater advantages' (2005, p. 300). Turner's contrary experience of being pushed to the margins of the sociological establishment is illustrative of the 'tribal' and 'territorial' nature of academic life (Becher & Trowler, 2001) and also resonates with Berlin's 'centripetal' and 'centrifugal' (1953, p. 1) forces. This prompts thinking of innovators as people propelled to the margins, preferring to keep separate and rejecting work that has gone before as sterile, and consolidators as located in a more pluralist mainstream, more aggregative in their ambitions. It also suggests thinking of applied researchers as more practical or more 'grounded' than their airborne 'blue skies' counterparts.

Identifying animals to populate the quadrants of the typology, the dams and lodges of beavers and the dens of bears establish their credentials as grounded builders, but they are distinguished by the bears' more solitary lifestyle, compared to that of the group-oriented beavers. Among the airborne occupants of the typology set out Table 2, jackdaws are likewise more collective in their habits than the less sociable but predatory eagles. Jackdaws' penchant for collecting is relevant too; collecting matters to consolidators because the accumulation of materials facilitates the systemisation of knowledge in a field, sometimes serendipitously (Merton and Barber 2006, pp. 224–5). As an alternative to Berlin's hedgehogs and foxes, such a typology is both less normative (in that each of the types is credited with a positive role) and more readily operationalisable empirically, if it is accepted that the types relate to particular phases rather than a whole lifetime's work. A career may see an individual working in different quadrants at different times. It may also give recognition to a greater proportion of researchers by focusing less exclusively on the heroic model of dazzling careers involving paradigm-shifting innovatory breakthroughs for which foxes (who do not concentrate on consolidation) and hedgehogs (who concentrate on rounding out their initial disruption of previous thinking) hold centre stage. Put another way, it is more inclusive as a map of careers than the celebration of major shifts within a discipline and the 'great men' (and, more rarely, 'great women') identified as instigating them. Becoming an 'academic superhero' (Hay, 2017) is not for everyone; other options are available. It is also important to note that the achievements of 'the stellar researcher' frequently rely on '"hired hands" who do much of the research' (Brannen, 2019, p. 180) Figures 3–6.

Conclusions

The hedgehog/fox contrast offers a stimulating but problematic framing of academic career trajectories. Individuals who are difficult to classify in these terms indicate that researchers do not necessarily stay exclusively with one way of working. It also

Figure 3. Konrad Gesner's eagle https://www.nlm.nih.gov/exhibition/historicalanatomies/gesner_home.html vol.3 p. 163.

exaggerates the extent to which individuals control the direction taken by their careers. In addition, the understandable focus on leading figures conveys an unrealistically heroic image of careers by playing down science's routine character. Research is not all glory (Weber, 2004, p. 8). Furthermore, present-day arrangements may militate against hedgehogs; pressure for quick results makes *The Slow Professor* (Berg & Seeber, 2016) a beleaguered figure, however much childhood lessons from Aesop about the tortoise and the hare point to a different conclusion, one celebrated in the *skrivarsekten* academic writers' group's motto, 'The snail conquers all' (Sword, 2017, p. 199). Hedgehogs are also out of step with the move away from specialisation which is the direction of travel being taken in training future generations of scholars (Luker, 2008, p. 9ff). This trend is driven by critics of the fact that 'The specialist can go on mining within a very narrow, intellectually fenced-in area without ever being disturbed by the burning issues of the day' (Back, 2016, p. 118). The hubris to which Tetlock found hedgehogs vulnerable also serves as a cautionary tale against over-claiming the merits of one particular point of view to the detriment of others. Conversely, other aspects of present-day arrangements may work against foxes. Their penchant for striking out in new directions makes it harder to build knowledge. As Colin Bell (1977, p. 60) pointed out, in situations of theoretical and methodological flux, when accounts of a phenomenon vary over time it is

Figure 4. Konrad Gesner's bear https://www.nlm.nih.gov/exhibition/historicalanatomies/gesner_home.html p. 1065.

Figure 5. Konrad Gesner's beaver https://www.nlm.nih.gov/exhibition/historicalanatomies/gesner_home.html p. 336.

difficult to determine whether this is due to change in society or in sociology. Bell's warnings of the dangers of paradigm wars took time to be heeded, and although these conflicts may now be adjudged 'a pointless and damaging episode in social research' (Williams & Vogt, 2011, p. 4), the risk remains of pugilistic hedgehogs and undisciplined foxes initiating their return.

In later life, Berlin did not fret over the limitations of his analysis, describing it as 'not exhaustive' because 'Some people are neither foxes nor hedgehogs, some people are both' (Berlin & Jahanbegloo, 1991, p. 189). A typology that can accommodate people's shifts over the course of their careers, reflecting the rhythms of academic life, promises benefits. There are, for example, spirited discussions of when in an academic's career their best work is done, and how likely this is to be followed by a 'mid-life crisis'

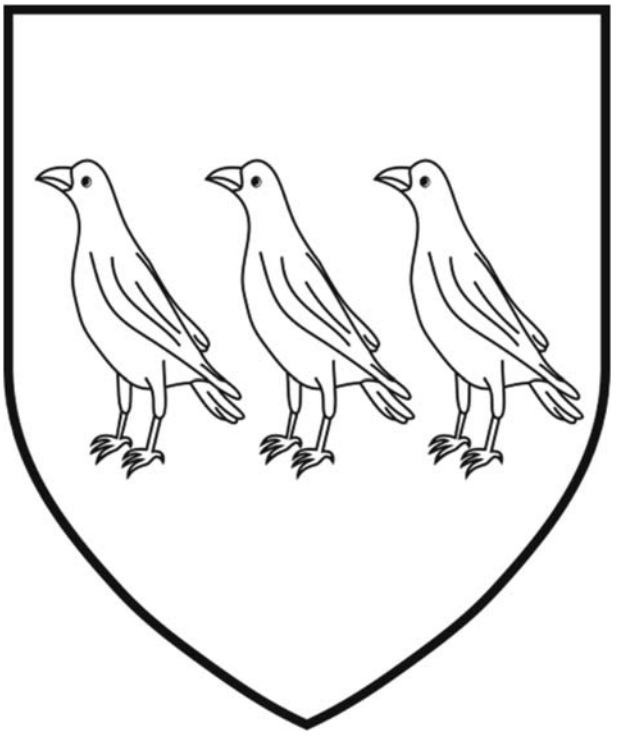

Figure 6. Jackdaws https://pixabay.com/vectors/coat-of-arms-borch-three-jackdaws-2355368/

(Becher & Trowler, 2001, p. 140ff). These things vary by discipline, and also by gender (Hochschild, 2003, p. 237). The individual sociologists discussed here are not necessarily typical of the broader discipline, let alone of other disciplines, but they do point to lessons that can be learned about careers. Perhaps the most important of these is that careers rarely follow a set course. Oakley rightly notes that her work history does not conform to the conventional career pattern; women face particular challenges fitting into this, as do other historically-marginalised groups such as ethnic minorities (Becher & Trowler, 2001, p. 153ff). It follows that role models *plural* are required (Hochschild, 2003, p. 233). These will not apply in all contexts: strategies that worked in the past may be inappropriate for to-day's changed circumstances in which early career researchers face uncertainties and insecurities at levels not seen for at least a generation. But if past performance is not necessarily a reliable guide to future success, some career stories embody enduring significance. One such would be the resilience of Elias whose achievements came despite exile from Nazi Germany and not securing a university post until the age of 57 (Elias, 1994).

Researchers who over the course of their working lives have moved between the identities contained in Table 2 (from bear to beaver, for example, or jackdaw to beaver and back) provide numerous alternative role models beyond those of hedgehog and fox. Oakley's occupancy of all four quadrants during different periods of her career makes her unusual, but her story is nevertheless instructive through what it demonstrates about not having to make once-and-for-all choices between individual

scholarship and team working, or between the applied and blue skies realms. It is telling that she was inspired by Charles Wright Mills's rejection of the false choice between 'grand theory' and 'abstracted empiricism' (Oakley, 2015b, p. 111). Also revealing is her critical engagement with rather than slavish adherence to or wholesale dismissal of the ideas of earlier generations of researchers. Her criticisms of the 'founding fathers' of her discipline are trenchant (Oakley, 2019b, ch.1), but she is equally passionate about recognising the overlooked contributions of their female counterparts (Oakley, 2018). There are echoes here of Merton's view that researchers should be neither overly reverential nor unduly dismissive of the giants on whose shoulders they find themselves standing (Sztompka, 1986, p. 20ff). In academic life there are 'many forms of originality' including both 'bringing a new perspective' and 'drawing on new sources of information' (Lamont, 2010, pp. 171–2), and these involve different types of engagement with forerunners.

Locating oneself in relation to predecessors does not have to be done in ways they would necessarily have endorsed. The view taken of the advancement of knowledge by Max Weber was that individual scholars must resign themselves to their achievements becoming 'obsolete in ten, twenty, or fifty years' (2004, p. 11). He also judged academic life 'an utter gamble' (2004, p. 11), and psychologically difficult to bear, even when approached as a vocation. While it is true that the achievement of advances in knowledge can be hard to predict and 'messy' (Harford, 2016), it remains prudent advice to researchers not to be 'solely reliant on the winds of change to direct your career' (Woodthorpe, 2018, p. 213). An individual can aspire to be 'moved … by conscious purposes, which are my own, not by causes which affect me, as it were, from outside' (Berlin, 2008, p. 178) but periodic reconsideration of what options are feasible will be assisted by clarity regarding the range of available role models, not least for what they reveal about structural constraints as well as the component parts out of which successful strategies are forged. This is supported by the alternative translation of Archilocus's saying as 'The fox devises many strategies; the hedgehog knows one great and effective strategy' (Gould 2004, p. 2). Douglas's opinion that 'animal differentiations are a splendidly apt source of metaphors for thinking about human differentiation' (1996, p. 139) also encourages this endeavour.

Acknowledgements

Thanks are due to Nickie Charles, Jonathan Hearn, Ann Oakley, Kate Woodthorpe and the journal's anonymous referees for numerous helpful comments on earlier drafts. Images from Konrad Gesner are reproduced here courtesy of the National Library of Medicine https://www.nlm.nih.gov/ Image 6 courtesy of Pixabay https://pixabay.com/vectors/coat-of-arms-borch-three-jackdaws-2355368/

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by the Leverhulme Trust under grant RF-2019-623

Notes on contributor

Graham Crow, FAcSS, is Professor of Sociology and Methodology at the University of Edinburgh. His interests include the sociology of community, sociological theory, comparative sociology, and research methodology. He is currently researching later academic career trajectories.

References

Abbott, A. (2001). *Time matters*. Chicago: University of Chicago Press.
Back, L. (2016). *Academic diary*. London: Goldsmiths Press.
Bailey, M. (2011). The academic as truth-teller. In M. Bailey, & D. Freedman (Eds.), *The assault on universities* (pp. 91–102). London: Pluto Press.
Becher, T., & Trowler, R. (2001). *Academic tribes and territories* (2nd ed.). Buckingham: Open University Press.
Becker, H. (1998). *Tricks of the trade*. Chicago: University of Chicago Press.
Bell, C. (1977). Reflections on the Banbury Restudy. In C. Bell & H. Newby (Eds.), *Doing sociological research* (pp. 47–62). London: George Allen and Unwin.
Berg, M., & Seeber, B. (2016). *The slow professor*. Toronto: University of Toronto Press.
Berlin, I. (1953). *The hedgehog and the Fox*. London: Wiedenfeld and Nicolson.
Berlin, I. (1980). *Concepts and categories*. Oxford: Oxford University Press.
Berlin, I. (1982). *Karl Marx* (4th ed.). Oxford: Oxford University Press.
Berlin, I. (2008). *Liberty*. Oxford: Oxford University Press.
Berlin, I., & Jahanbegloo, R. (1991). *Conversations with Isaiah Berlin*. New York: Charles Scribner's Sons.
Bernstein, B. (1973). *Class, codes and control, volume 1*. St Albans: Paladin.
Bierstedt, R. (1990). Merton's systematic theory. In J. Clark, C. Modgil, & S. Modgil (Eds.), *Robert Merton* (pp. 67–74). London: Falmer.
Bourdieu, P. (1988). *Homo academicus*. Stanford: Stanford University Press.
Bourdieu, P. (1996). *The state nobility*. Stanford: Stanford University Press.
Brannen, J. (2019). *Social research matters*. Bristol: Bristol University Press.
Briggs, A. (2001). *Michael Young*. Basingstoke: Palgrave.
Crow, G., & Takeda, N. (2011). Ray Pahl's sociological career: Fifty years of impact. *Sociological Research Online*. Retrieved from http://www.socresonline.org.uk/16/3/11.html
Dench, G., Flower, T., & Gavron, K. (Eds.). (1995). *Young at eighty*. Manchester: Carcanet.
Diggins, J. (1978). *The Bard of Savagery*. Hassocks: Harvester Press.
Douglas, M. (1978). *Natural symbols*. Harmondsworth: Penguin.
Douglas, M. (1996). *Thought styles*. London: Sage.
Dumont, L. (1977). *From Mandeville to Marx*. Chicago: Chicago University Press.
Elias, N. (1994). *Reflections on a life*. Cambridge: Polity.
Farndon, R. (1999). *Mary Douglas*. London: Routledge.
Fox, A. (1974). *Beyond contract*. London: Faber.
Fox, A. (1985). *History and heritage*. London: Allen and Unwin.
Fox, A. (1990). *A very late development*. Coventry: University of Warwick.
Friedrichs, R. (1972). *A sociology of sociology*. New York: Free Press.
Giddens, A. (1988). Goffman as a systematic social theorist. In P. Drew & A. Wootton (Eds.), *Erving Goffman* (pp. 250–279). Cambridge: Polity.
Giddens, A. (1996). *In defence of sociology*. Cambridge: Polity.
Gladwell, M. (2014). *David and Goliath*. Harmondsworth: Penguin.
Goffman, E. (1969). *The presentation of self in everyday life*. Harmondsworth: Penguin.
Goffman, E. (1971). *Relations in public*. Harmondsworth: Penguin.
Gould, S. (2004). *The hedgehog, the Fox and the Magister's Pox*. London: Vintage.
Grunberg, L. (2007). A serendipitous career. In M. Deflem (Ed.), *Sociologists in a global Age* (pp. 131–144). Aldershot: Ashgate.
Hall, J. (2011). *Ernest Gellner*. London: Verso.

Halsey, A. H. (1995). *The decline of Donnish Dominion*. Oxford: Clarendon Press.
Harford, T. (2016). *Messy*. New York: Riverhead.
Harrison, D. (1988). *The sociology of modernization and development*. London: Unwin Hyman.
Hay, I. (2017). *How to be an academic superhero*. Cheltenham: Edward Elgar.
Hochschild, A. (1983). *The managed heart*. Berkeley: University of California Press.
Hochschild, A. (2003). *The commercialization of intimate life*. Berkeley: University of California Press.
Hollis, M. (1994). *The philosophy of social science*. Cambridge: Cambridge University Press.
Holmwood, J. (2011). Introduction. In J. Holmwood (Ed.), *A manifesto for the public university* (pp. 1–11). London: Bloomsbury Academic.
Husbands, C. (2019). *Sociology at the London school of economics and political science, 1904–2015*. Cham, Switzerland: Palgrave Macmillan.
Lamont, M. (2010). *How professors think*. Cambridge, Mass.: Harvard University Press.
Luker, K. (2008). *Salsa dancing into the social sciences*. Cambridge, Mass.: Harvard University Press.
Mairet, P. (1957). *Pioneer of sociology*. London: Lund Humphries.
Mandeville, B. (1970). *The Fable of the bees*. Harmondsworth: Penguin.
Mann, M. (1996). Ruling class strategies and citizenship. In M. Bulmer, & A. Rees (Eds.), *Citizenship today* (pp. 125–144). London: UCL Press.
Mars, G. (1983). *Cheats at work*. London: Unwin Paperbacks.
Mars, G. (2015). *Becoming an anthropologist*. Newcastle-upon-Tyne: Cambridge Scholars Publishing.
Marshall, T. H. (1963). *Sociology at the crossroads*. London: Heinemann.
Marx, G. (2017). What's it all about? In R. Darling & P. Stein (Eds.), *Journeys in sociology* (pp. 119–130). Philadelphia: Temple University Press.
Marx, K. (1975). *Early writings*. Harmondsworth: Penguin.
McDonald, L. (1994). *The women founders of the social sciences*. Ottawa: Carleton University Press.
Merton, R. (1936). The unanticipated consequences of purposive social action. *American Sociological Review*, *1*(6), 894–904.
Merton, R. (1942). A note on science and democracy. *Journal of Legal and Political Sociology*, *1*(1–2), 115–126.
Merton, R. (1956). *Social theory and social structure*. Toronto: The Free Press.
Merton, R., & Barber, E. (2006). *The travels and adventures of serendipity*. Princeton: Princeton University Press.
Mullan, B. (1996). *Sociologists on sociology* (2nd ed.). Aldershot: Avebury.
Oakley, A. (2000). *Experiments in knowing*. Cambridge: Polity Press.
Oakley, A. (2002). *Gender on planet earth*. Cambridge: Polity Press.
Oakley, A. (2005). *The Ann Oakley reader*. Bristol: Policy Press.
Oakley, A. (2007). *Fracture*. Bristol: Policy Press.
Oakley, A. (2011). *A critical woman*. London: Bloomsbury.
Oakley, A. (2014). *Father and daughter*. Bristol: Policy Press.
Oakley, A. (2015a). *Sex, gender and society*. Farnham: Ashgate. New edn (original 1972).
Oakley, A. (2015b). Imagining social science. In K. Twamley, M. Doidge, & A. Scott (Eds.), *Sociologists' tales* (pp. 109–116). Bristol: Policy Press.
Oakley, A. (2018). *Women, peace and welfare*. Bristol: Policy Press.
Oakley, A. (2019a). *Social support and motherhood*. Bristol: Policy Press. New edn (original 1992).
Oakley, A. (2019b). *The sociology of housework*. Bristol: Policy Press. New edn (original 1974).
Oakley, A., Fullerton, D., Holland, J., Arnold, S., France-Dawson, M., Kelly, P., & McGrellis, S. (1995). Sexual health interventions, for young people: A methodological review. *British Medical Journal 21 January*, *310*, 158–162.
Pahl, R. (1984). *Divisions of labour*. Oxford: Basil Blackwell.
Parsons, T. (1968). *The structure of social action, vol. 1*. New York: Free Press.
Payne, G., & Cross, M., (Eds.). (1993). *Sociology in action*. Basingstoke: Macmillan.
Platt, J. (1976). *Realities of social research*. London: Sussex University Press.
Runciman, W. G. (1997). *A treatise on social theory, vol. III*. Cambridge: Cambridge University Press.
Runciman, W. G. (2004). Epilogue. In A. H. Halsey (Ed.), *A history of sociology in Britain* (pp. 219–222). Oxford: Oxford University Press.

Scott, J. (2001). *Power*. Cambridge: Polity.
Sennett, R. (2006). Preface. In A. Buonfino, & G. Mulgan (Eds.), *Porcupines in winter* (pp. iv–vi). London: The Young Foundation.
Slaughter, S., & Leslie, L. (1997). *Academic capitalism*. Baltimore: Johns Hopkins University Press.
Sword, H. (2017). *Air & light & time & space*. Cambridge, Mass.: Harvard University Press.
Sztompka, P. (1986). *Robert K. Merton*. Basingstoke: Macmillan.
Tetlock, P. (2005). *Expert political judgement*. Princeton: Princeton University Press.
Thorne, B., & Hochschild, A. (1997). Feeling at home at work. *Qualitative Sociology*, *20*(4), 517–520.
Turner, S. (2005). High on insubordination. In A. Sica, & S. Turner (Eds.), *The disobedient generation* (pp. 285–308). Chicago: University of Chicago Press.
Watermeyer, R. (2019). *Competitive accountability in academic life*. Cheltenham: Edward Elgar.
Weber, M. (2004). *The vocation lectures*. Cambridge: Hackett.
Williams, R. (2008). Erving Goffman. In R. Stones (Ed.), *Key sociological thinkers*, (2nd ed.) (pp. 184–196). Basingstoke: Palgrave.
Williams, M., & Vogt, W. (2011). Introduction. In M. Williams & W. Vogt (Eds.), *The SAGE handbook of innovation in social research methods* (pp. 1–16). London: Sage.
Woodthorpe, K. (2018). *Survive and thrive in academia*. Abingdon: Routledge.
Zeitlin, I. (1987). *Ideology and the development of sociological theory* (3rd ed.). Englewood Cliffs, NJ: Prentice-Hall.